

DEPARTMENT OF ENVIRONMENTAL QUALITY

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For Immediate Release August 19, 2011

Sampling efforts show improvement on Pearl River

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BATON ROUGE – Preliminary results from water samples taken at Temple-Inland Bogalusa Mill on Sunday, Aug. 14, have been analyzed by an accredited laboratory. The results are consistent with what scientists have observed from daily assessments -- low dissolved oxygen levels led to an extensive fish kill first identified on Aug. 13 in the Pearl River. The first results returned from the lab show non-detect levels for volatile organic compounds, non-detect for oil and grease and total suspended solids at 95 milligrams per liter, which is below permitted limits.

"The test results we received today show no toxicity in the water," said DEQ Secretary Peggy Hatch. "When DEQ personnel were notified of a possible fish kill by a media inquiry, our water quality experts immediately mobilized and were in the field assessing the fish kill eight hours before the company notified us. Scientists have remained in the Pearl River in Washington and St. Tammany parishes since the initial notification; taking dozens of water samples daily. When the initial investigation showed a slug of untreated wastewater possibly from Temple-Inland Mill, scientists took water samples directly from the facility's outfall to get the best data possible. Since that time, DEQ scientists have taken daily water samples which show the water quality is improving, it's getting back to normal and is no longer lethal to fish except for in a few shallow-water tributaries. The preliminary results from the analytical data from the lab show this is not a chemical issue, but a biological occurrence which are consistent with the field data."

The initial constituents were sampled in the early stages of the fish kill in an effort to gather water quality data. These are also constituents of the Temple-Inland Mill's discharge permit, as well as the biological oxygen demand associated with "black liquor."

Scientists with the Department of Environmental Quality, working in conjunction with other state, federal and local agencies, continue to see improvement in the Pearl River, which is also an indication that low dissolved oxygen was a causal issue on Aug. 13.

When DEQ water quality experts arrived on scene on the morning of Aug. 13, hours before the company reported the fish kill, these sampling efforts showed dissolved oxygen at levels lethal to fish. Since the initial event, DEQ has taken dozens of daily in situ water samples throughout the impacted area looking at dissolved oxygen, pH, conductivity, temperature and salinity. The latest assessments demonstrate non-lethal levels of these parameters for fish, except for dissolved oxygen in an area in Porter's River.

On Wednesday, Aug. 17, DEQ received a letter from the Temple-Inland Bogalusa Paper Mill stating that the facility had an exceedance of its maximum permit limit for biological oxygen demand, which the company believes may have led to the depleted oxygen level that killed thousands of fish in the Pearl River in Washington and St. Tammany parishes.

The material causing the low dissolved oxygen was paper mill effluent with excessive "black liquor" as a result of an equipment malfunction. Black liquor contains lignin separated from wood pulp. Wood pulp is

used to make paper. It is produced by cooking wood chips and adding sodium hydroxide, which has a high pH. The process breaks down lignin and makes the liquor easily digested by bacteria in the water. The digestion process robs the water of oxygen and suffocates fish.

The plume is currently flowing into the Rigolets. Low tides and low flow from the river have left the plume close to stationary at this location. The back end of the plume has become harder to define as it diminishes over time, but ends somewhere near I-10. Scientists in boats on the river and in the DEQ airplane have not see any signs of newly deceased fish. Contractors are currently on the river picking up dead fish which will help improve oxygen levels in the river.

Because of the difference in the environment between the wide-open, deep and tidally influenced Rigolets area and the closed, shallow Pearl River, DEQ scientists predict there will be no negative impact from the low dissolved-oxygen plume as it dissipates. However, DEQ crews will continue to conduct daily assessments of the water until the plume dissipates entirely.

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